REMARKS

With the entry of this Amendment, Claims 1-28 are pending in the present application, of which claims 1, 13 and 20 are in independent form. Claims 1, 13 and 20 are amended without adding new matter. Support for amended matter can be found on page 5, paragraph 24 and pages 7 and 8, paragraphs 30 and 31 of the present application.

I. REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

The Examiner has rejected claims 1-5, 7, 13,14, 16, 20-23 under 35 U.S.C. § 102(b) as being anticipated by Franke et al., Autonomous Driving Goes Downtown, IEEE Intelligent Systems, 1998 (hereinafter "*Franke*"). Applicants traverse this rejection.

Contrary to the Examiner's assertion, *Franke* fails to teach the step of processing comprises classifying the selected plurality of patches into a plurality of classes as recited in amended independent claims 1, 13 and 20. The Examiner claims that *Franke* discloses this step on page 41, column 1, "detect and classify different additional traffic participants, such as bicyclists or pedestrians;", page 41, column 1, "A polynomial classifier subsequently classifies detected lane boundaries such as curbs, markings or cluster."; and page 44, column 2, "The classifications stages involves color, shape and pixel values." None of the citations of *Franke* pointed out by the Examiner teach or suggest the classifying the selected plurality of patches into a plurality of classes as recited in amended independent claim 1, 13 and 20.

Note that on page 41, column 2, *Franke* teaches, " Our feature-based approach classifies each pixel according to gray values of its four direct neighbors......". Thus, *Franke* teaches classification of a whole image of the scene (figure 1 of *Franke*). Whereas, in the *present application*, a <u>selected</u> plurality of patches of the depth map are classified, as recited in amended

independent claim 1, 13 and 20. This is because in the *present application*, only parts of the image in the scene are classified. Moreover, after classification, *Franke* extracts structures from the image to recognize road boundaries and then removes all features on the road plane to generate a 2D depth map containing the remaining features including the objects that are subsequently tracked. (See page 41, columns 2 and 3 and page 42, column 1 of *Franke*). Clearly, *Franke* does not classify the depth map. Whereas, in the *present application* as claimed, a depth map of the scene is tessellated into a plurality of patches and further a selected patches of this map are classified. Thus, *Franke* fails to teach or suggest classifying the selected plurality of patches into a plurality of classes as recited in amended independent claims 1, 13 and 20 of the *present application*.

Since *Franke* is devoid of any teachings regarding classifying the selected plurality of patches into a plurality of classes, Applicants believe amended independent claims 1, 13, and 20 are patentable under 35 U.S.C. § 102 (b). Claims 2-5, 7, 14, 16, 21-23 depend, either directly or indirectly, from claims 1, 13, and 20 and are patentable at least for the same reasons that the independent claims are patentable. As such, the Applicants respectfully request the rejection of claims 1-5, 7, 13, 14, and 16, 20-23 be withdrawn.

II. REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

The Examiner has rejected claims 6 and 15 as being unpatentable over *Franke* in view of Yang et al., Vision Based Real-time Obstacles Detection and Tracking for Autonomous Vehicle Guidance. Real-time Imaging VI, Proceedings of SPIE, Vol. 4666, pp. 65-74, 2002 (hereinafter "*Yang*").

Neither of the references, *Franke* in view of *Yang* alone or in combination teach or suggest the step of classifying the selected plurality of patches into a plurality of classes as recited in amended independent claims 1 and 13. Since, the amended independent claims 1 and

13 are patentable over the prior art, as discussed above, Applicant submits that the dependent claims 6 and 15 are allowable for the same reasons as advanced allowability of claims 1 and 13. Applicant respectfully requests withdrawal of the §103 rejection of Claims 6 and 15.

IV. ALLOWABLE SUBJECT MATTER

The Applicants thank the Examiner for objecting to claims 8-12, 17-19, and 24-28 as being dependent upon a rejected base claim, but deeming the claims allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
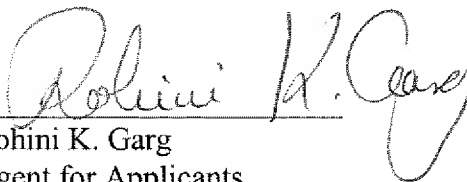
CONCLUSION

In view of the above amendment and remarks, Claims 1-28 are submitted to be allowable. Reconsideration and favorable action in this regard are therefore earnestly solicited.

No fee is believed to be required with the entry of this amendment. However, if any additional fee is deemed necessary for this Amendment to be entered and considered by the Examiner, then the Commissioner is authorized to charge such fee to Deposit Account No. **501358**.

Applicants' undersigned agent may be reached at the telephone number provided below. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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